

# Introduction to Tc/I in Hanford Flowsheet

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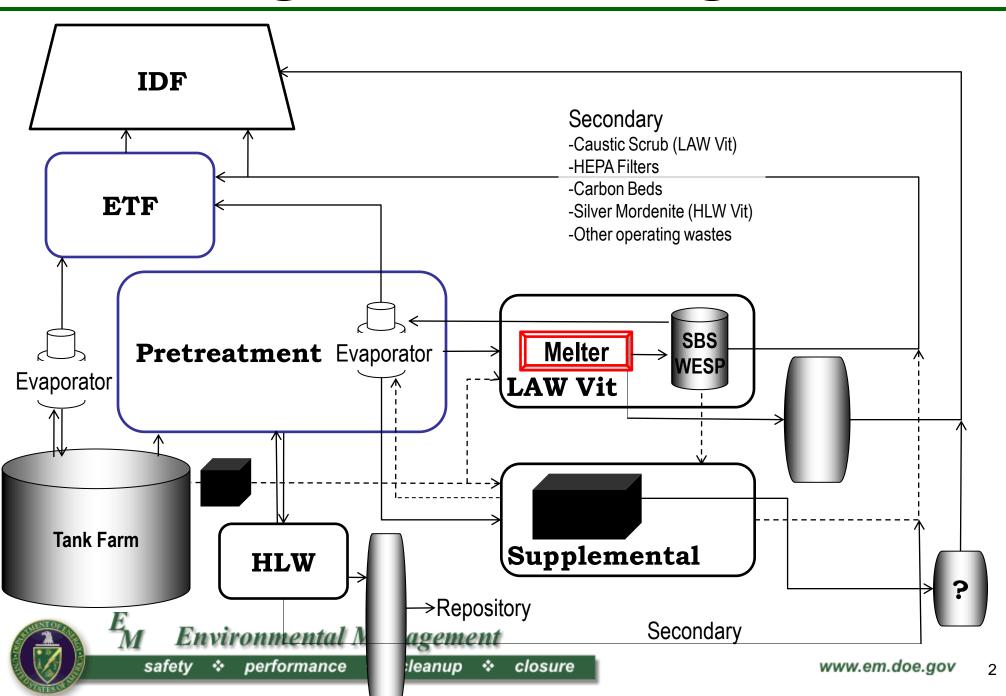
Office of Waste Processing (EM-31)

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Environmental Management

## Rough Flowsheet Diagram



#### **Recycle Options**

- Continuous recycle of the SBS/WESP bottoms from LAW vitrification are assumed in baseline
  - could consider purges and breaking of the recycle loop (e.g., off-gas scrub sent to secondary waste treatment, portions diverted to HLW vitrification facility, or supplemental LAW treatment)
- WTP mass balance assumes no recycle from supplemental treatment
  - many estimates have been made on the impacts of scrub solution recycle if supplemental treatment was assumed to be a second LAW vitrification facility
  - have impacts on water management.



### Talk Agenda

- 1. Inventory and partition factors for Tc, I, and H<sub>2</sub>O
  - With and without SBS/WESP recycle
- 2. WTP melter/off-gas partition factors for Tc, Re, and I
- 3. Impacts of waste compositions and recycle on LAW glass amount
- 4. Hanford secondary waste streams and waste forms
- 5. FBSR process and waste form for Hanford LAW
- 6. Recap and conclusions
- 7. Discussion with EM TEG
- 8. Action items and wrap-up





## Rough Flowsheet Diagram

